

What is claimed is:

1. A wave power generator comprising a floating body floating on waves, a heavy body elastically supported on said floating body by an elastic member so that a damping force is produced between said floating body and said heavy body with the movement of said heavy body, and a power generating means for converting kinetic energy to electric energy, wherein a spring constant of said elastic member is preset so that the undamped natural frequency ω_0 of said elastic member is close to the frequency ω of waves which vibrate said floating body within a predetermined range of the ratio ω/ω_0 , thereby utilizing resonance of said elastic member with waves.
2. A wave power generator comprising a floating body floating on waves, a heavy body elastically supported on said floating body by an elastic member so that a damping force is produced between said floating body and said heavy body with the movement of said heavy body, and a power generating means for converting kinetic energy to electric energy, wherein a spring constant of said elastic member is preset so that the undamped natural frequency of said elastic member is equal to the frequency of waves which vibrate said floating body, thereby utilizing resonance of said elastic member with waves.
3. The wave power generator of claim 1 or 2 wherein said elastic member has a variable spring constant and an undamped natural frequency which is adjustable corresponding to a change in the frequency of waves.

4. The wave power generator of any of claims 1 to 3 wherein said elastic member is an air spring, and an auxiliary tank is connected to said air spring so that the capacity of said air spring can be adjusted, whereby the undamped natural frequency of said elastic member is adjustable in correspondence to a change in the frequency of waves.
5. The wave power generator of any of claims 1 to 4 wherein said power generating means is an electromagnetic damper.
6. The wave power generator of any of claims 1 to 5 wherein said floating body has a self-advancing function or said floating body is a ship.